

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**DECLARATION FOR UTILITY OR
DESIGN
PATENT APPLICATION
(37 CFR 1.63)**

☒ Declaration Submitted with Initial Filing **OR** ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	BA-U-WIN-00010
First Named Inventor	Robert T. Bigelow
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiner Name	

As the below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original and first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD FOR MAKING AN OPENING IN THE BLADDER OF AN INFLATABLE
MODULAR STRUCTURE FOR RECEIVING A WINDOW**

(Title of the Invention)

the specification of which

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) as United States Application Number or PCT International

Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR
AUTHORIZATION OF AGENT****Application Number****Filing Date****First Named Inventor**

Robert T. Bigelow

Title

Method for Making an Opening...

Art Unit**Examiner Name****Attorney Docket Number**

BA-U-WIN-00010

I hereby appoint:

☐

Practitioners at Customer Number

Place Customer
Number Bar Code
Label here

OR

☒

Practitioner(s) named below:

Name	Registration Number
Franklin E. Gibbs, Esq.	44,709

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐

The above-mentioned Customer Number.

OR

☐

Practitioners at Customer Number.

Place Customer
Number Bar Code
Label here

OR

☒Firm or
Individual Name

Bigelow Aerospace

Address

1899 W. Brooks Avenue

Address

City

North Las Vegas

State

NV

Zip

89032

Country

USA

Telephone

(702) 639-4440

Fax

(702) 639-0881

I am the:

☒

Applicant/Inventor.

☐Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

Name

Robert T. Bigelow

Signature

Robert T. Bigelow

Date

9/12/03

Telephone

(702) 639-4440

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐

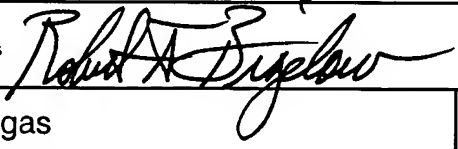
*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: <input type="checkbox"/>		Customer Number or Bar Code Label <input style="width: 150px;" type="text"/>		OR <input checked="" type="checkbox"/>		Correspondence address below	
Mr. Franklin E. Gibbs, Esq. Bigelow Aerospace Name							
1899 W. Brooks Avenue Address							
North Las Vegas City				NV State		89032 ZIP	
USA Country			(702) 639-4440 Telephone			(702) 639-0881 Fax	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.							
NAME OF SOLE OR FIRST INVENTOR :				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name Robert T. (first and middle [if any])				Family Name Bigelow or Surname			
Inventor's Signature 						Date 9/17/03	
Las Vegas Residence: City			NV State		USA Country		USA Citizenship
1899 W. Brooks Avenue							
Mailing Address							
North Las Vegas City			NV State		89032 ZIP		USA Country
NAME OF SECOND INVENTOR:				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City			State		Country		Citizenship
Mailing Address							
City			State		ZIP		Country
<input type="checkbox"/> Additional inventors are being named on the _____ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.							

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application:	:	DECLARATION OF ROBERT T.
Number not assigned as of the	:	BIGELOW IN SUPPORT OF THE
date of this petition.	:	PETITION TO MAKE SPECIAL AND
Art Unit Number: Not yet assigned	:	ADVANCE EXAMINATION PURSUANT
Filing Date:	:	TO 37 CFR §1.102
First Named Inventor:	:	
Robert T. Bigelow	:	
Title:	:	
Method for making an Opening	:	
in the Bladder of an Inflatable Modular	:	
Structure for Receiving a Window	:	
Filing Date:	:	
Confirmation Number:	:	
Not yet assigned	:	

DECLARATION OF ROBERT T. BIGELOW

I, Robert T. Bigelow, do hereby declare:

1. I am the inventor of the method for making an opening in the bladder of an inflatable modular structure for receiving a window.
2. I am President of Bigelow Aerospace (hereafter "Bigelow"), assignee of the method for making an opening in the bladder of an inflatable modular structure for receiving a window.
3. Bigelow is developing an inflatable modular human habitat (hereafter "Modular Habitat") for use in Earth Orbit. The Modular Habitat has the advantage of having an inflatable shell that is less heavy than a solid shell per cubic meter of volume and thus less expensive to place into orbit. Also, while a solid shell space station cannot expand to gain more internal volume, the inflatable shell can be inflated to provide more internal working space.
4. Bigelow is privately funded and receives no government funding or grants toward the development of the Modular Habitat.

6. The module has a flexible and inflatable multi-layered shell covering a rigid structural core. The shell can be compressed allowing the module to fit as in the payload compartment of a number of conventional lifting vehicles. When the module is placed in orbit, the shell can be inflated to many times its compressed size. When inflated, the module has more internal volume than a typical hard shell space structure of a similar launch payload size. The extra volume of the inflatable module allows for more crewmembers, equipment, and experiments. Thus, more can be accomplished with a single launch of an inflatable module than can be done with a single hard shell module.
7. A key invention to the development of the Modular Habitat is installing a window into the flexible shell of the module.
8. A window allows the crew inside the module to see events occurring outside. In this way, the crew can assist with work being performed outside.
9. Another advantage to a window has to do with psychological factors. The window provides a link for the crew to the outside universe. The crew would not be within an environment that was totally enclosed and had no external points of reference.
10. While the procedure for installing a window in a hard-shelled spacecraft is relatively straight forward, the same cannot be said for an inflatable module. The flexible characteristic of the inflatable module makes it difficult to install a window through the various layers of the craft.
11. The development of a space based platform for researching various areas of science offers vast potential for identifying breakthrough technologies. This is exemplified in an article by the American Geological Institute published in 1997 and provided herein as Attachment A. This document was downloaded from <http://www.agiweb.org/legis105/spacstat.html>. Reference to this document does not mean that I subscribe to everything stated in the document. The document is being offered as support to specific areas that are pertinent to this declaration.

12. These areas include advances in the understanding and exploration of human health and development. (Attachment A, page 1, second paragraph).
13. One such area is that of investigating protein crystal growth in a micro-gravity environment. (Attachment A, page 3 starting at the last paragraph).
14. Material science is another area of research. (Attachment A, page 4 starting at the second full paragraph).
15. With the availability of more durable materials to produce items, the items last longer and there is less need for producing replacement items.
16. It is interesting to note that, in general, many manufacturing and production processes rely upon water and air in some fashion. For example, air is used to facilitate combustion in the production of electricity, which in turn powers many production and manufacturing facilities. Water is routinely used for cleaning or to distribute heat.
17. As to combustion technology, even a modest increase in efficiency will have a dramatic impact on the economy and the environment. For example, it is estimated that a 2% increase in burner efficiency would save the U.S. \$8 billion per year. Attachment A, page 3 starting at the second full paragraph.

///

///

///

///

///

///

///

///

///

///

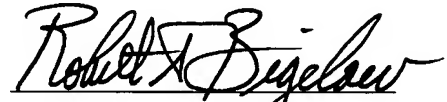
///

18. Due to the current expense of placing a space station into orbit, these types of experiments are usually performed by governments. The Modular Habitat will widen the demographic range of people and entities that could afford such experiments and thereby allow access for space experimentation and exploration to a wider group.

I declare under penalty of perjury under the laws of the United States of America that the above is accurate and true to the best of my knowledge.

Executed at 1899 W. Brooks Avenue, North Las Vegas, NV 89032, on

September 17, 2003.

A handwritten signature in black ink, appearing to read "Robert T. Bigelow", written over a horizontal line.

Mr. Robert T. Bigelow
President
Bigelow Aerospace